



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Texas

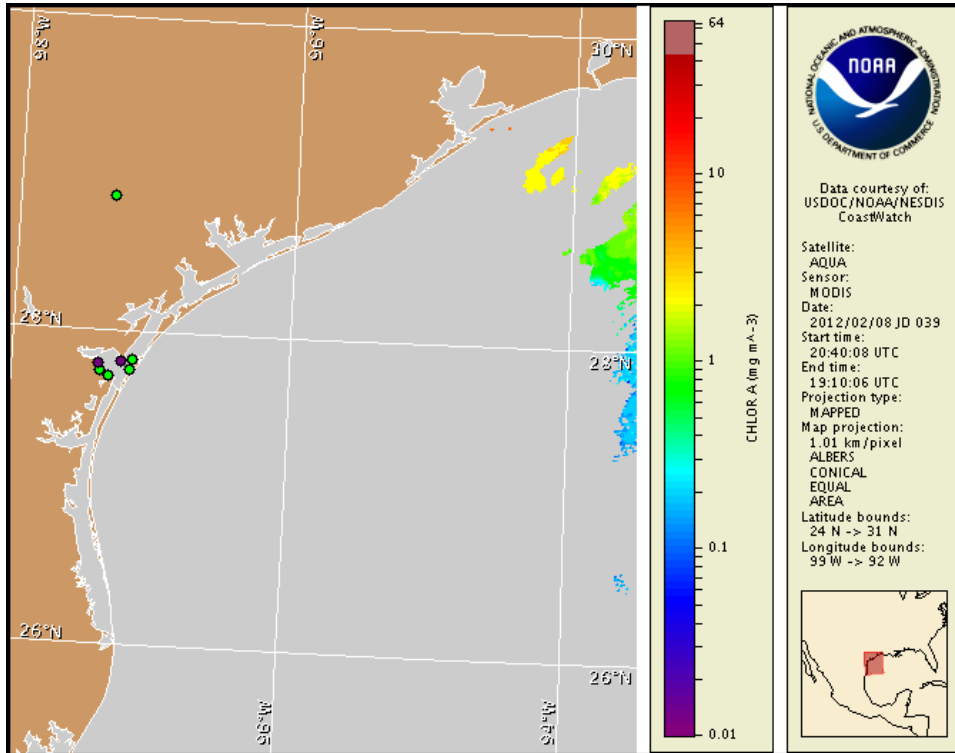
Thursday, 09 February 2012

NOAA Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Monday, February 6, 2012



Satellite chlorophyll image with possible HAB areas shown by red polygon(s). Cell concentration sampling data from January 30 to February 8 shown as red (high), orange (medium), yellow (low b), brown (low a), blue (very low b), purple (very low a), pink (present), and green (not present). For a list of cell count data providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide:

http://tidesandcurrents.noaa.gov/hab/habfs_bulletin_guide.pdf

To see previous bulletins and forecasts for other Harmful Algal Bloom Bulletin regions, visit the NOAA Harmful Algal Bloom Operational Forecast System bulletin archive:
<http://tidesandcurrents.noaa.gov/hab/bulletins.html>

Conditions Report

Water samples last identified the harmful algae, *Karenia brevis* (Texas red tide) in the Port Aransas/Corpus Christi Bay area on January 30. Patchy very low impacts are possible in the area today through Sunday. No additional respiratory impacts are expected at the coast in Texas today through Sunday, February 12. The harmful algae, *Dinophysis*, has been identified in the Freeport and Port Aransas areas. Discolored water has been reported from the Freeport area. *Dinophysis* does not produce the respiratory irritation impacts associated with the Texas red tide caused by *Karenia brevis*. The Texas Department of State Health Services (DSHS) has opened select areas of Galveston Bay, Lavaca Bay, Espiritu Santo Bay, and San Antonio Bay to shellfish harvesting. For the latest information on the opening and closing of shellfish harvest areas, please call DSHS at 1-800-685-0361.

Analysis

The harmful algae, *Karenia brevis*, remains in the Port Aransas/Corpus Christi Bay area; however, samples and satellite imagery indicate that *K. brevis* concentrations are dissipating.

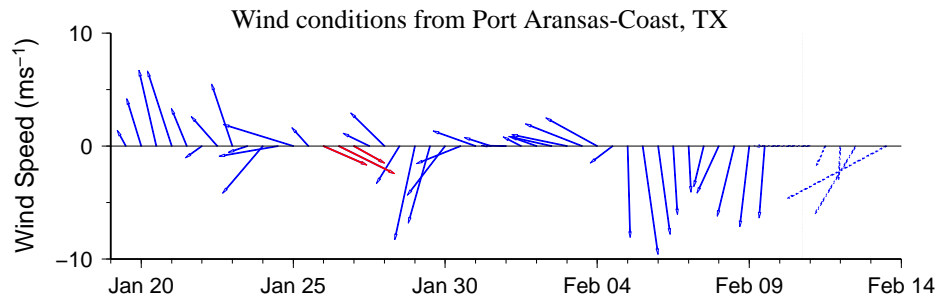
No new samples have been received from either the Galveston Bay or Aransas/Corpus Christi Bay regions. The most recently received sampling reports identified 'not present' to 'low a' *K. brevis* concentrations from the Galveston Bay area (1/23; TPWD) and 'not present' to 'very low a' concentrations from within the Copano, Aransas, and Corpus Christi bay areas (1/27-30; TPWD).

A bloom of *Dinophysis ovum* has been confirmed in the Surfside Marina in Freeport and has been linked to reports of discolored water in the area (2/8; TPWD). The Imaging FlowCytobot has identified increasing levels of *Dinophysis* at the UTMSI pier in Aransas Pass, but concentrations are too low at present to cause discolored water in the area (2/8; TPWD). Blooms of *Dinophysis* are rare in the US and we do not have a standard for monitoring with remote sensing. Imagery does not provide a useful reference for the blooms, but may help visualize circulation patterns. *Dinophysis* does not produce respiratory impacts associated with the Texas red tide caused by *K. brevis*; however, the bloom can result in shellfishing restrictions. Updates on this bloom will continue to be provided as information becomes available.

Over the past few days, MODIS imagery (2/8; shown left) has been obscured by clouds along the Texas coastline from Sabine Pass to the Rio Grande area, limiting analysis. Patches of elevated chlorophyll (2 to 3 $\mu\text{g/L}$), visible stretching offshore the coast from the Galveston area to east of Sabine, are not indicative of the presence of harmful algae; they are most likely the result of the resuspension of benthic chlorophyll and sediments along the coast.

Forecast models based on predicted near-surface currents indicate the presence of strong currents moving south along the Texas coast with a potential maximum transport of >150km south from the Port Aransas region.

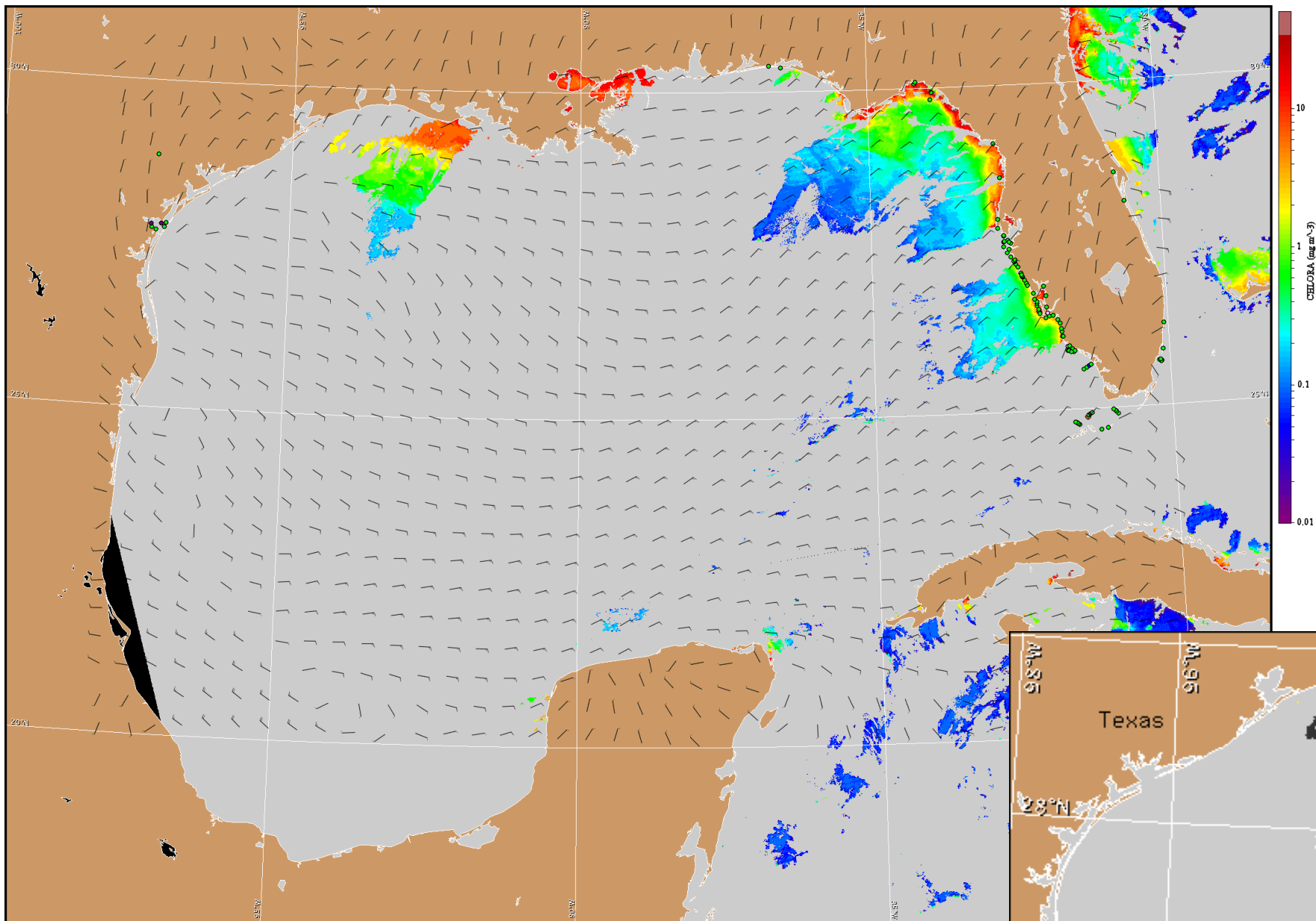
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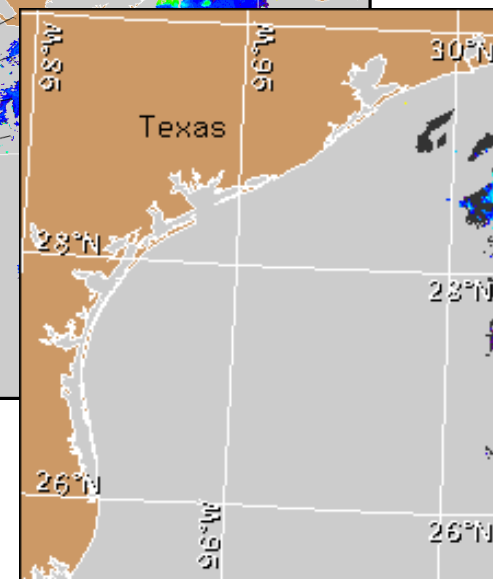
Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts. Wind observation and forecast data provided by NOAA's National Weather Service (NWS).

Wind Analysis

Port Aransas: Northeast to east winds (10-15 kn, 5-8 m/s) today. Northeast to north winds (10-20 kn, 5-10 m/s) Friday through Saturday. East winds (15-20 kn, 8-10 m/s) Saturday night through Sunday.



Satellite chlorophyll image and forecast winds for February 10, 2012 12Z with cell concentration sampling data from January 30 to February 8 shown as red (high), orange (medium), yellow (low b), brown (low a), blue(very low b), purple (very low a), pink (present), and green (not present). For a list of cell count data providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide: http://tidesandcurrents.noaa.gov/hab/habfs_bulletin_guide.pdf



Verified and suspected HAB areas shown in red. Other areas of high chlorophyll concentration shown in yellow (see p. 1 analysis for interpretation).